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State, Environmentalists Fault Advice To EPA On Key Nuclear Cleanup

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State regulators and environmentalists are arguing that a new report expected to inform EPA's decision on how to deal with radioactive waste at a high-profile Superfund site near St. Louis misrepresents data contained in the report to conclude that nuclear contamination has not entered groundwater and moved around the site.

EPA's decision on whether to remove nuclear contamination at the West Lake Landfill in Bridgeton, MO, or leave it in place could set precedent for how EPA deals with radioactive waste sites near urban areas in the future. The agency's National Remedy Review Board (NRRB), a panel at EPA headquarters that seeks to ensure consistent cleanup decisions nationwide, has urged the agency to consider a "hybrid" option of removing the highest level radioactive material while leaving lower level waste in place and under a cap.

A geologist familiar with the West Lake landfill says data in the Dec. 14 "Groundwater Monitoring Report" by Engineering Management Support Inc. shows contamination has entered the groundwater and spread from a section of the landfill known to contain contamination, yet the report concludes otherwise. The report was prepared on behalf of the potentially responsible parties (PRPs) at the site and submitted to EPA Region VII.

"We're buried under reports by advocacy groups trying to evade responsibility; it's not a good way to get information," the source says. The PRPs are "drawing conclusions that are exactly the opposite of what their data show."

The Missouri Department of Natural Resources (MDNR) also attacks the PRPs' report in Jan. 15 comments sent to the contractor and Region VII, which say the contractor's data analysis is insufficient to support the report's conclusion that contamination has not spread. In the comments, MDNR also suggests the contractor incorrectly reported the location of a contaminated well in order to conclude that contamination detected in the well is from background sources rather than contamination that has spread from the landfill.

The PRPs' claim that a well containing high levels of radium-226 is up gradient from the site's contaminated section is a chief concern for the geologist and

MDNR who both say the report's diagrams suggest the well is down gradient and so the levels may be the result of contamination rather than naturally occurring background as the PRP suggests. *The comments are available on InsideEPA.com.* (*Doc ID: 2423351*)

EPA has been weighing how to handle West Lake's nuclear contamination for years and in 2008 announced a plan to leave the waste in place under a cap and monitor the site, but after public outcry, the agency shelved the idea in favor of further study. In 2011, an agency-mandated study suggested two alternatives to the Bush-era plan, but said the alternatives were more expensive than the original decision, which is still being considered. In response to NRRB's recommendation to consider the hybrid option, a Region VII official said last fall that a variety of possible solutions remain (*Superfund Report*, Oct. 29).

The geologist says he raised concerns about the 87-page report requested by the NRRB during a Jan. 17 public hearing but that Region VII officials did not respond to his criticism. The contractor's report was part of an EPA presentation at the Jan. 17 public hearing in Bridgeton, where the agency said radium was detected in 25 wells at levels above the drinking water standard, or maximum contaminant level (MCL), but also that recent studies by the U.S. Geological Survey suggest radium levels in the region's groundwater may be naturally elevated.

In addition to the PRPs' groundwater sampling, Region VII officials have recently screened wells for gamma radiation -- tests that indicated the presence of radiologically-impacted material, according to the EPA presentation. Surface gamma scans are planned for 2013, which also may help confirm the extent of radiologically impaired material, and the PRP's evaluation of contamination at West Lake is still ongoing, according to the presentation.

EPA intends to update its 2011 report of alternatives with the recent data and will put a new proposed plan for the site out for public comment prior to reaching a final decision.

Environmental groups in other parts of the country fear the Bush-era cleanup plan for West Lake would set dangerous precedent for leaving radioactive waste at urban Superfund sites at levels above the agency's traditional limits and set a precedent of allowing nuclear waste disposal at urban landfills not regulated by the Nuclear Regulatory Commission (NRC). An EPA spokesman has disputed critics' characterization of the landfill as "urban," saying West Lake is in an "industrial/suburban" area, adjacent to an industrial park and an airport.

NRC studies indicate that the average concentration of radioactive radium-226 at West Lake is about 90 piccocuries per gram (pCi/g) of soil, 18 times above the 5 pCi/g level that EPA usually uses as the cut-off point for allowing waste to remain at such a site. Some samples taken at the site indicate radium-226

concentrations as high as 21,000 pCi/g, or 4,200 times above the conventional EPA standard (*Superfund Report*, Feb. 6).

The December contractor's report concludes that levels of Radium-226 and Radium-228 in groundwater that exceed EPA's MCLs are naturally occurring rather than resulting from contamination that has moved from contaminated portions of the landfill to other parts of the site.

The PRPs say their additional groundwater sampling supports the same conclusions reached after sampling in the 1990s, which informed EPA's prior decision to leave the contamination in place and cap and monitor the landfill.

Environmentalists and state regulators are also critical of the the report's assertion that levels of Radium-226 above EPA's MCL are up gradient from the contaminated part of the landfill, suggesting the samples "are not indicative of a distinct plume(s) or area(s) of Radium-226 in groundwater."

The report uses those findings as evidence to reassert the conclusion from the 1990s that the sampling "results are not indicative of on-site contaminant plumes, radial migration, or other forms of contiguous groundwater contamination that might be attributable to the landfill units being investigated."

In its comments, MDNR says the PRPs' analysis is insufficient to support their conclusion that contamination has not spread and caused high levels of contamination in groundwater, and specifically targets the PRPs' assertion that a contaminated well is up gradient from the contaminated section of the landfill. MDNR suggests the well is down gradient, raising the possibility that radioactive material may be moving.

The geologist says that while groundwater testing and other sampling shows West Lake contains nuclear contamination, EPA should conduct better research to understand exactly what radioactive material the landfill contains. "The whole process is geared not to provide thoughtful answers," the source said. "People are not gathering the information they need, and the information they are forced to gather is misinterpreted."

A source with the Missouri Coalition for the Environment says the group also commented at the public meeting that the PRPs' report contains inaccuracies, and that the group plans to file comments on the report with EPA in the coming weeks or months.

EPA's official comment period for West Lake has passed, but a spokesman for Region VII said the agency will still consider additional comments offered by the community or others.

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